

DRAFT Environmental Strategies for Design-Build Projects

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Background

WSDOT has been working with resource agencies to find ways to involve them throughout the design-build process. On January 8, 2004 WSDOT held a design-build workshop with local, state, and federal regulatory agencies to educate them about the design-build process and to record their questions and concerns. WSDOT also spoke with the agencies about their experiences on the Tacoma Narrows Bridge project to further identify any issues the agencies might have with design-build projects. Comments received from the agencies were then categorized into one of the following areas:

- 1) Staffing – Depending on their size, design-build projects may demand more resource agency staff time, to meet accelerated project schedules.
- 2) Scoping – During the environmental scoping process, WSDOT invites the agencies and the public to voice concerns about the project and to identify natural resource protection objectives.
- 3) Preliminary Design and Permitting – During this phase WSDOT will design the project to a level sufficient for the public involvement process, environmental documentation, and permit acquisition.
- 4) Design-Builder Selection – WSDOT will request project proposals from pre-selected design-build firms, evaluate their proposals, and award the job to the firm whose proposal provides the overall best value through an evaluation of technical criteria and project cost.
- 5) Final Design and Construction – Design-builder completes the design and construction of the project according to contract specifications.
- 6) Final Product – WSDOT reviews environmental commitments to determine if the completed project fulfills permit conditions and to ensure mitigation measures will be met, prior to contract completion.

This paper presents issues and concerns the agencies identified regarding design-build projects and recommends strategies to alleviate these concerns. Many of the concerns and issues fell logically into themes, and those themes have been summarized below.

Staffing

Issues/Strategies

Design-Build Projects Demand More Agency Staff Time

Issue

- ❑ Agencies report that they are currently understaffed. They believe the design-build process will make this situation even worse.
- ❑ Agencies foresee a need to permit “worst case” or “multiple design option” scenarios, and they do not have the staff to undertake this effort.

Strategy

- ❑ On very large projects, or on projects where several options are being permitted, WSDOT may need to fund positions at agencies. WSDOT will develop project specific plans to implement this strategy.

Involving Resource Agencies Early-On

Issue

- ❑ Agencies indicated that project decisions are made before they can become involved.

Strategy

- ❑ Co-location of workforce. Embed resource agency staff within the WSDOT team to better facilitate project delivery. Resource agency folks would be involved early-on in the process and thus present for key discussions and decisions. WSDOT will develop project specific plans to implement this strategy.

Scoping

Issues/Strategies

Agency Involvement during the Scoping of Projects

Issue

- ❑ Agencies commented that they are not typically involved in the scoping of the projects outside of the formal environmental process.

Strategy

- ❑ Coordinated Meetings with Agencies - WSDOT will provide project updates and obtain input from resource agencies and jurisdictions at regularly scheduled meetings. For example, a steering committee is already established for the I-405 corridor.
- ❑ Mitigation Task Force – As project effects become better defined, WSDOT will invite resource agency participation in identifying appropriate project mitigation.
- ❑ Project Design Presentations – WSDOT will invite resource agencies to provide input on design outcomes during the project preliminary design.
- ❑ Project Scoping Meetings – WSDOT will record resource agency concerns about the project and identify natural resource protection objectives.
- ❑ Discipline Reports – WSDOT will invite cooperating agency comment on project environmental documents.
- ❑ Commitments Database – WSDOT will track project environmental commitments during the life of the project and incorporate them into the design-build contract. Environmental commitments will be performance based.

Preliminary Design and Permitting

Issues/Strategies

Level of Detail Needed to Obtain Permits

Issue

- ❑ To be able to permit, agencies will still need the same level of design information they are used to seeing. If WSDOT uses the design-build method, the agencies are concerned there will insufficient design details.
- ❑ Agencies are concerned that the effects of projects, effects that must be known and understood to allow permitting to occur, will not be available under the design-build method.

Strategy

- ❑ Prior to formal permitting, WSDOT will hold meetings with permitting agencies to identify the natural resources at issue, and with agency help, determine the level of detail necessary to obtain each permit.
- ❑ WSDOT will provide the level of detail needed to obtain permits. The design WSDOT commits to during permitting will be “locked in” or mandated in the design-build contract.

Mitigation, Lessened Impacts, and Design-Build Expectations

Issue

- ❑ When agencies permit using the worst-case scenario, mitigation is commensurate with that scenario. However, when impacts are lessened, the agencies feel pressured to allow less mitigation to occur than was agreed to in permits.
- ❑ Agencies are concerned that the mitigation identified in permits will either not be done at all, or design-builders will feel free to substitute one mitigation site or function with another.

Strategy

- ❑ If WSDOT pursues permits for a worst-case scenario design, then it will commit to mitigate for that design. In order to avoid mitigating for worst-case scenario impacts, WSDOT will work with resource agencies to set up the following:
 - Mitigation bank agreements establishing credit that can be drawn upon for impacts incurred.
 - Permit terms and conditions that require mitigation dependent on level of impact. For example, permits can be written so that if a, b, and/or c impacts occur, then x, y, and/or z mitigation will be required.
- ❑ Where appropriate, permit requirements including mitigation will be spelled out in the contract. These permit requirements and mitigation measures will be performance based. Any unapproved deviation of the contract would be a breach of the contract, making the design-builder potentially liable to WSDOT for damages.
- ❑ Where appropriate for the project, WSDOT is pursuing advanced mitigation; that is providing mitigation ahead of impacts. Where this is implemented, WSDOT will have control over the mitigation, and the design builder will have no need to take part, eliminating the possibility of lessened or different mitigation that is identified in permits.

Revisiting or Losing the “Spirit” of the permit during design

Issue

- ❑ Agencies fear that design-builders will look for designs that are cheaper or easier to implement, making the design legally sufficient, but not a design that reflects the “spirit” of the permit.
- ❑ Agencies are concerned that the design-builder may repeatedly revisit permits, pushing the agencies to allow designs that are different from those identified in the permit.

Strategy

- ❑ Permit requirements will be spelled out in the contract. WSDOT will define objective criteria and parameters in the contract, so that the “spirit” of the permit is maintained.

- ❑ WSDOT will own the permits. The roles and responsibilities of WSDOT and the design-builder will be specified in the contract. WSDOT will be the lead in conversations with the permitting agencies. If the design-builder wants to make a design change that is inconsistent with a particular permit, WSDOT will work with the design-builder and resource agencies on permit modifications or to obtain new permits.

Design-Builder Selection

If WSDOT pursues a design-build strategy, regulatory agencies understand that WSDOT will not fully design the project before awarding it to a design-builder. Instead, WSDOT will design the project to a level that will allow it to complete the environmental documentation, to complete the public involvement process and to obtain permits. After this footprint level of design is complete, WSDOT will request project proposals from pre-selected design-build firms, evaluate and score the proposal, then award to the firm whose overall proposal best meets cost and technical scoring criteria.

Issues/Strategies

Selection of the Design-Builder

Issue

- ❑ Regulatory agencies are concerned that WSDOT may select a firm with a bad environmental record or one that does not share the same environmental values as the resource agencies and WSDOT.

Strategy

- ❑ WSDOT intends on screening for design-builders that have good environmental records; who are committed to protecting natural resources.
- ❑ When issuing a request for qualifications (RFQ), WSDOT will screen design-build firms based on their environmental performance history, expertise of environmental management and staff, and level of environmental staff authority within the organization, among other considerations.
- ❑ Exemplary environmental performance will be a part of the total technical scoring of the RFQ. For example, environmental performance will be at least 25% of the RFQ score for I-405 projects.
- ❑ WSDOT will invite regulatory agency input on the RFQ screening criteria and the request for proposal (RFP) scoring.

Design Selection Considerations

Issue

- ❑ Agencies would like to ensure that the most environmentally sensitive design is selected

Strategy

- ❑ In the RFP, WSDOT will establish criteria that the project design must meet in order to avoid specific natural resource impacts. These design criteria will be taken from the commitments made in the environmental documentation as well as from the permit terms and conditions.

- ❑ When selecting amongst project proposals, WSDOT will provide a scoring advantage for designs that go above the minimum to protect and enhance environmental resources. WSDOT will make their selection on the “best value” as defined by the design-build criteria. This is defined as price divided by score. Environmental commitments will be part of the scoring process, and will become Contract Requirements.

Final Design and Construction

Issues/Strategies

Incorporation of Environmental Commitments into Design

Issue

- ❑ How will WSDOT ensure the design-builder provides a design which is environmentally friendly?

Strategy

- ❑ WSDOT will ensure the permit requirements, best management practices, and expectations are clearly spelled out in the contract documents. The contract will include performance specifications to define how permit requirements will be met.

Review of Final Design

Issue

- ❑ Agencies would like to review the final design to ensure it meets permit requirements.

Strategy

- ❑ WSDOT will make the final project designs available to the permitting agencies. However, WSDOT will not require the design-builder to obtain regulatory agency approval on final designs.
- ❑ WSDOT will ensure the design meets permit requirements by articulating the design required in contract language.
- ❑ In addition, WSDOT will identify its role as permit holder in the contract, formalizing WSDOT's control and responsibility over permits.

Implementation of Commitments during Construction

Issue

- ❑ How will WSDOT ensure that during construction best management practices are being properly implemented?
- ❑ How will WSDOT resolve non-compliance issues should they occur?
- ❑ How will WSDOT address unforeseen impacts during the design and construction?

Strategy

- ❑ Consideration will be provided in the contract regarding unit price items (separate from the lump sum) for use by WSDOT in areas such as erosion control. This could serve to isolate WSDOT directed work in areas of environmental protection and not bring the risk of impacting larger scale project deliverables.

- ❑ WSDOT will have monitors on site to ensure compliance. WSDOT, via contract, will give the monitors authority to halt all work on a project for lack of performance. To ensure compliance is achieved throughout the project, the following will be implemented:
- Design-builder will submit an Environmental Compliance Plan as part of their proposal. Numerical scoring criteria will be developed to give weight to those proposals demonstrating a comprehensive plan for environmental compliance. This plan becomes a contract requirement.
 - For larger projects, WSDOT will require in the contract, that an Environmental Task Force be formed to ensure design efforts reflect environmental commitments. The Task Force; comprised of WSDOT, the design-builder, and resource agencies will meet on a regular basis to discuss environmental compliance issues throughout the duration of the contract. Not every design-build project will require an Environmental Task Force; a modified plan for smaller projects would be developed on a case by case basis.
 - WSDOT and the design-builder will develop procedures to define compliance roles, responsibilities, and expected communication protocol. WSDOT will make this Roles and Responsibilities agreement available to the resource agencies.
 - WSDOT will establish environmental performance measures in the contract and WSDOT will be responsible for ensuring that these performance measures are achieved.
 - WSDOT will develop internal quarterly compliance reports to document events, trends, and compliance performance. WSDOT will use the performance reports to communicate with the design-builder and the resource agencies.
 - WSDOT will train field staff. WSDOT will develop assistance materials that will help them identify environmental commitments and will define procedures. Materials developed for the first design-build project will be evaluated for their effectiveness, and institutionalized on future projects if proven successful.
 - WSDOT will provide compliance performance incentives in the contract. One example would include a financial reward for environmental excellence. Rewards will acknowledge the builder's efforts for minimizing adverse environmental impacts *beyond* the standards required in the contract. Definitions explaining what constitutes, going *beyond* the standards, will be included in the contract.
 - WSDOT will include disincentives for non-compliance in the contract. Such disincentives may include liquidated damages, interim suspensions, and partial deferment of payment.
 - At the close of the contract, WSDOT will document how and when environmental commitments were fulfilled. An Environmental Commitment Close-Out Report will be prepared by the design-builder to define roles, requirements, and responsibilities for maintaining environmental mitigation and permanent BMPs. Procedures for monitoring and managing mitigation site success beyond the termination of the contract will be documented.

- ❑ Management Support for Compliance Assurance – The goal of the compliance strategy is to ensure each WSDOT design-build project engineer (PE) is positioned to actively lead the environmental compliance component of the design-build contract. WSDOT design-build management team will provide endorsement and approval for implementation of compliance strategy to all project staff and WSDOT executive management. WSDOT's design-build management team will clearly communicate compliance expectations to the design-build PE and project team. WSDOT will seek improvements from project construction and environmental staff for modifications to the program to ensure compliance is achieved throughout the project.

Final Product

Issues/Strategies

Fulfilling Permit Conditions

Issue

- ❑ What if WSDOT gets to the end of project and the permit conditions are not met (i.e., what if promised wetland mitigation fails)?

Strategy

- ❑ WSDOT will retain responsibility for the success of mitigation requirements identified in a permit and for making any correction to failing or failed mitigation actions.
- ❑ WSDOT will review and inspect any mitigation action implemented by the design-builder to ensure they meet the permit conditions.
- ❑ WSDOT will incorporate financial incentives to reward the design-builder for exceeding minimum permit and mitigation conditions.
- ❑ WSDOT will include disincentives for non-compliance in the contract.
- ❑ WSDOT will ensure that contingencies are reflected in mitigation plans prepared for projects. Contingency strategies will reduce the risks associated with failing mitigation measures, by providing corrective actions to ensure their success.